

REMARKS

§ 112 Rejection

The § 112 rejection of claims 8 and 17 made in the final action of December 12, 2007 is moot in view of the cancellation of such claims.

Obviousness Rejections

Claims 1, 4, 5, 11 and 13 are rejected as obvious over Goss (2003/0003900)(hereafter “Goss”) in view of Amin et al. (7,171,221)(hereafter “Amin”) and Goss et al. (2002/0137498)(hereafter “Goss-2”).

The applicants request reconsideration and withdrawal of the rejection in view of the following remarks.

The independent claims recite that the mobile telephone is monitoring the signal strength of a signal transmitted between a base transceiver station in the cellular wireless telephone network and the mobile station, and continuing to monitor such a signal strength during a period when call forwarding is activated.

Thus, claim 1 recites, in part:

monitoring a measure of received signal strength at said mobile station, the measure of received signal strength being of a signal transmitted between a base transceiver station of a cellular wireless telephone network and the mobile station,

...

continuing to monitor signal strength of a signal transmitted between the base transceiver station and the mobile station at said mobile station during a period when call forwarding is activated; and

automatically transmitting a second feature code from said mobile station to a wireless network when said signal strength rises above said threshold level, said second feature code deactivating said call forwarding.

Similarly, independent claim 11 recites:

circuitry monitoring a measure of received signal strength from a base transceiver station of a cellular wireless telephone network;

programmable logic providing instructions for automatically transmitting a first feature code from said wireless telephone to a wireless network activating call forwarding when said circuitry determines that the received signal strength of a signal transmitted between the base transceiver station and the mobile station falls below a threshold level; and

programmable logic providing instructions for automatically continuing to monitor the received signal strength from a base transceiver station of a cellular wireless telephone network after the first feature code is transmitted and for transmitting a second feature code from said wireless telephone to a wireless network deactivating call forwarding when said circuitry determines that the received signal strength, having previously fallen below a threshold level, rises above said threshold level.

Applicants submit that this approach to call forwarding using signal strength measurements from the base transceiver station in a cellular wireless telephone network is not obvious over the combination of Goss in view of Amin and Goss-2.

Goss

As noted previously, Goss' call forwarding is entirely based on the geographic proximity of the mobile phone to a landline phone. The mobile phone of Goss is monitoring a "beacon message" from the landline phone using a low-range radio transceiver. In the event that the Goss phone goes out of range of the low range "beacon message" radio signal emitted from landline phone then call forwarding to the mobile phone occurs. When the mobile phone goes back within range of the landline phone (and starts to pick up the "beacon message") then call forwarding back to the landline phone occurs. See Goss Abstract, Paragraphs 5, 16, 18, 19.

At no point is Goss monitoring the received signal strength from a base transceiver station of a wireless network to turn on call forwarding or turn it off in the manner claimed. Accordingly, in the event that the Goss mobile phone is out of range of the land line phone and loses signal, no call forwarding would occur. For example, if a

wireless device is roaming, e.g., in a car far away from a land line phone, and loses signal no forwarding would occur and the phone would simply go out of service. Goss thus completely misses the problem that is solved with this invention – triggering call forwarding when a mobile phone is losing signal from a base transceiver station in a cellular wireless network.

Amin

Amin is essentially cumulative with Goss in this respect. Amin's approach to call forwarding one telephone to another is to detect the proximity of the two phones. When the phones are proximate (e.g., the mobile telephone is near a landline phone), forwarding occurs. When the mobile phone drifts away (e.g., the user takes the phone with them when they go to work) then proximity is not longer present and call forwarding occurs. See Amin, col. 1 line 60 to col. 2 line 32. Goss can detect proximity using various techniques such as GPS position (Col. 2 line 9), using position triangulation (col. 2 line 10-11), or by using short range wireless transceivers (e.g., Bluetooth) between two wireless phones (col. 2 lines 14-18; col. 10 lines 43-52).

Like Goss, at no point is Amin comparing signal strength measurements from the base transceiver station to a threshold as a triggering event to turn on or turn off call forwarding. Amin also does not address the problem of what to do when signal strength from a base transceiver is too weak to receive a call. Amin and Goss both completely miss the problem that is solved with this invention – triggering call forwarding when a mobile phone is losing signal from a base transceiver station in a cellular wireless network, e.g., when they are roaming far away from a land-line phone and go into a location of poor cellular coverage.

Goss-2

The Examiner now cites Goss-2, stating that “The combination of Goss and Amin did not teach expressly signal transmitted between a base transceiver station of a cellular wireless telephone network and the mobile station. However, Goss-2 teaches in an analogous art signal transmitted between a base transceiver station of a cellular wireless telephone network and the mobile station”, citing to Figure 1 and paragraphs 10 and 33.

Goss-2 is referencing monitoring activities that are performed in the Mobile Switching Center (MSC) 113 of Goss-2 (or some other network entity in the network 103, 107 or 101), not monitoring activities or programmable logic in the mobile unit as claimed in claims 1 and 11. In other words, neither Goss-2, Amin, or Goss disclose or suggest a wireless device which continues to monitor the received signal strength from the base transceiver station during a period in which first feature code is transmitted and activating call forwarding.

Goss-2 makes it clear that the determination of whether the mobile station is in or out of service is made by the MSC and whether or not the mobile station responds to pages or other orders from a MSC and the control of call forwarding is initiated by the MSC. The wireless device does not initiate call forwarding based on its own monitoring activities. Goss-2 also does not use a wireless device transmitting feature codes to turn on and off call forwarding, but rather this is done by entities on the network side. The Examiner’s attention is directed to the passages in Goss-2:

Paragraph 33: “MSC 113 determines (203) if mobile unit 102 is in service. A mobile unit is considered to be in service if it can respond to a page or an order in home wireless system 103 . . .”

Paragraph 34: “The step of determining that mobile unit 102 is in service is preferably comprises receiving a transmission from the mobile unit-in response to a page

for example. The paging message is preferably sent on a periodic time basis. . . . If mobile unit 102 does not respond to a paging message within a predetermined number of attempts or within a predetermined period of time, MSC 113 assumes that the mobile unit 102 has gone out of service.”

See also paragraphs 23 and 34.

Thus, in Goss-2, control of call forwarding functionality is performed on the network side by an MSC determining whether or not the mobile device is responding to pages. Goss-2 does not suggest at all that the mobile device itself continues to monitor signal strength after call forwarding has been initiated and then on its own sending the new feature code to the network to deactivate call forwarding when the signal strength has risen above a threshold level.

A person skilled in the art would not find it obvious to combine Goss-2 with Amin and Goss to come up with the present invention. Both Goss and Amin suggest that the mobile device should trigger call forwarding based on geographic proximity to land line phones. This concept has no application in Goss-2 (or in the present invention). Goss-2 suggests that a network element, e.g. MSC should monitor how the mobile device is responding to periodic page messages to determine whether or not the phone is in service and then take steps to control call forwarding. Goss-2, when viewed in combination with Goss and Amin, does not suggest that the mobile device should be monitoring signals from the base station during periods when call forwarding is activated, but rather that this task should be performed by the MSC or some other network entity. The approach of Goss-2, and Goss and Amin, are very different from each other and would not suggest teachings of the present independent claims.

Accordingly, applicants submit that the obviousness rejection of independent claims 1 and 11 and claims dependent therefrom should be withdrawn.

Rejection of claims 2, 3, 7 and 10

These claims are rejected as obvious over Goss in view of Amin and Goss-2, further in view of Lundborg.

Claims 2, 3 and 7 and 10 depend from claim 1. Lundborg is concerned with handoff of mobile devices between cells and methods of tuning a parameter indicating the minimum sufficient signal strength threshold used in determining whether or not a preferred cell is suitable. (Background, col. 1 lines 7-14). Lundborg does not address call forwarding, nor does he teach or suggest that call forwarding, having been switched on, should be switched off in accordance with the teachings of claim 1 discussed above. Neither Lundborg nor Goss, Goss-2 or Amin suggest monitoring signal strength from a base transceiver station and comparison of such signal strength to a threshold as the trigger to initiate the call forwarding. Nor do they teach, either solely or in combination, continuing to monitor received signal strength from a base transceiver station after call forwarding has been initiated and sending a second feature code when signal strength has improved above the threshold level. Accordingly, Lundborg in combination with Goss, Goss-2 and Amin cannot render claims 2, 3, 7 and 10 obvious.

Claim 6

Claim 6 is rejected over Goss in view of Amin, Goss-2 and Lo (RE 37,301).

While the Examiner is correct that Lo teaches transmitting information codes over access channels, this teaching of Lo fails to overcome the deficiency of Goss and Amin in

failing to teach the subject matter of claim 1. Lo adds nothing to how a mobile device should perform call forwarding using a monitoring of received signal strength from a base transceiver station in a cellular wireless telephone network. Accordingly, the rejection of claim 6 should be withdrawn.

Claim 8

The rejection of claim 8 is moot in view of the cancellation of the claim.

Claim 9

Claim 9 stands rejected as obvious over Goss in view of Amin, and Goss-2, and further in view of Chawla (6,496,700). Claim 9 depends from claim 1 and further recites that the threshold level [to initiate sending of feature codes to turn on and off call forwarding] is within a certain decibel range.

Assuming for the sake of argument that Chawla is appropriate for citation of the subject matter of claim 9, it does not make up for the deficiency of Goss, Goss-2 and Amin failing to teach or suggest the subject matter of claim 1, from which claim 9 depends. In particular, Chawla is directed to methods for determining organizational parameters in a wireless system and discloses methods of determining signal strength and losses in wireless communications systems. Chawla is silent on a call forwarding feature, let alone call forwarding as claimed in claim 1. Even if Chawla was combined with Goss, Goss-2 and Amin, at most it teaches characterization of organization parameters in a wireless system such as the Goss or Amin system, but that fails to account for a method by which call forwarding should be terminated, by means of feature codes, by monitoring

received signal strength measurements from a base transceiver station as claimed in claim

1. Accordingly, the rejection of claim 9 should be withdrawn.

Claim 12

Claim 12, which depends from claim 11, stands rejected as obvious over Goss in view of Amin, and Goss-2, further in view of Haub (2004/015429). Haub is cited for a teaching of circuitry monitoring a ratio of E_c/I_o where E_c is a measure of carrier strength and I_o is a measure of interference.

Haub's teaching does not overcome the deficiency of Goss. Goss-2, and Amin in failing to teach or suggest the feature of claim 11 of a wireless telephone that includes logic "automatically continuing to monitor the received signal strength after the first feature code is transmitted *and for transmitting a second feature code . . . deactivating call forwarding when said circuitry determines that the received signal strength, having fallen previously below a threshold level, rises above said threshold level.*"

As noted above, both Goss and Amin use proximity between two phones as the triggering event to start and stop call forwarding, e.g., using low range RF beacon signals between the two phones.

Haub's teaching, if applied to Goss or Amin, would suggest using E_c/I_o measurements for the low-range beacon signals emitted by the phones as a method of determining proximity of the two phones. Goss-2 does not need to monitor these measurements since it describes having the MSC send paging signals or other orders to the mobile device and determines whether a response was received. Nothing in Haub suggests that the Amin or Goss phones should ignore proximity to the phones and instead

monitor the signal strength from a base transceiver station. Consequently, even if Haub were to be combined with Goss, Goss-2 and Amin, the result is the not invention of claim 11 or claim 12. The rejection should be withdrawn.

Claim 14-17

The prior art rejection of these claims is moot in view of the cancellation of the claims.

Favorable reconsideration of the application is requested.

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